#8

PCT09

RAW SEQUENCE LISTING DATE: 06/04/2002
PATENT APPLICATION: US/09/937,060A TIME: 16:12:33

Input Set : A:\PF0683USNSEQLISTING.txt
Output Set: N:\CRF3\06042002\I937060A.raw

p.6

ENTERED

4 <110> APPLICANT: INCYTE PHARMACEUTICALS, INC.
5 BANDMAN, Olga
6 TANG, Y. Tom
7 YUE,Henry
8 HILLMAN, Jennifer L.
9 BAUGHN, Mariah R.
10 AZIMZAI, Yalda
11 LU, Dyung Aina M.
12 AU-YOUNG, Janice

14 <120> TITLE OF INVENTION: REGULATORS OF INTRACELLULAR PHOSPHORYLATION

16 <130> FILE REFERENCE: PF-0683 PCT

C--> 18 **<140> CURRENT APPLICATION NUMBER: US/09/937,060A**

C--> 19 **<141> CURRENT FILING DATE: 2002-04-15**

21 <150> PRIOR APPLICATION NUMBER: 60/125,593; 60/135,049; 60/143,188

W--> 22 **<151> PRIOR FILING DATE: 1999-03-18; 1999-05-20; 1999-07-09**

24 <160> NUMBER OF SEQ ID NOS: 28

26 <170> SOFTWARE: PERL Program

28 <210> SEQ ID NO: 1

29 <211> LENGTH: 482

30 <212> TYPE: PRT

31 <213> ORGANISM: Homo sapiens

33 <220> FEATURE:

34 <221> NAME/KEY: misc_feature

35 <223> OTHER INFORMATION: Incyte ID No: 480457CD1

37 <400> SEQUENCE: 1

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38 Met Pro Pro Ser Pro Leu Asp Asp Arg Val Val Val Ala Leu Ser
39   1               5                  10                  15
40 Arg Pro Val Arg Pro Gln Asp Leu Asn Leu Cys Leu Asp Ser Ser
41                  20                  25                  30
42 Tyr Leu Gly Ser Ala Asn Pro Gly Ser Asn Ser His Pro Pro Val
43                  35                  40                  45
44 Ile Ala Thr Thr Val Val Ser Leu Lys Ala Ala Asn Leu Thr Tyr
45                  50                  55                  60
46 Met Pro Ser Ser Ser Gly Ser Ala Arg Ser Leu Asn Cys Gly Cys
47                  65                  70                  75
48 Ser Ser Ala Ser Cys Cys Thr Val Ala Thr Tyr Asp Lys Asp Asn
49                  80                  85                  90
50 Gln Ala Gln Thr Gln Ala Ile Ala Ala Gly Thr Thr Thr Thr Ala
51                  95                 100                 105
52 Ile Gly Thr Ser Thr Thr Cys Pro Ala Asn Gln Met Val Asn Asn
53                 110                 115                 120
54 Asn Glu Asn Thr Gly Ser Leu Ser Pro Ser Ser Gly Val Gly Ser
55                 125                 130                 135
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PATENT APPLICATION: US/09/937,060A TIME: 16:12:33

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```
Pro Val Ser Gly Thr Pro Lys Gln Leu Ala Ser Ile Lys Ile Ile
                140                 145                 150
Tyr Pro Asn Asp Leu Ala Lys Lys Met Thr Lys Cys Ser Lys Ser
                155                 160                 165
His Leu Pro Ser Gln Gly Pro Val Ile Ile Asp Cys Arg Pro Phe
                170                 175                 180
Met Glu Tyr Asn Lys Ser His Ile Gln Gly Ala Val His Ile Asn
                185                 190                 195
Cys Ala Asp Lys Ile Ser Arg Arg Arg Leu Gln Gln Gly Lys Ile
                200                 205                 210
Thr Val Leu Asp Leu Ile Ser Cys Arg Glu Gly Lys Asp Ser Phe
                215                 220                 225
Lys Arg Ile Phe Ser Lys Glu Ile Ile Val Tyr Asp Glu Asn Thr
                230                 235                 240
Asn Glu Pro Ser Arg Val Met Pro Ser Gln Pro Leu His Ile Val
                245                 250                 255
Leu Glu Ser Leu Lys Arg Glu Gly Lys Glu Pro Leu Val Leu Lys
                260                 265                 270
Gly Gly Leu Ser Ser Phe Lys Gln Asn His Glu Asn Leu Cys Asp
                275                 280                 285
Asn Ser Leu Gln Leu Gln Glu Cys Arg Glu Val Gly Gly Gly Ala
                290                 295                 300
Ser Ala Ala Ser Ser Leu Leu Pro Gln Pro Ile Pro Thr Thr Pro
                305                 310                 315
Asp Ile Glu Asn Ala Glu Leu Thr Pro Ile Leu Pro Phe Leu Phe
                320                 325                 330
Leu Gly Asn Glu Gln Asp Ala Gln Asp Leu Asp Thr Met Gln Arg
                335                 340                 345
Leu Asn Ile Gly Tyr Val Ile Asn Val Thr Thr His Leu Pro Leu
                350                 355                 360
Tyr His Tyr Glu Lys Gly Leu Phe Asn Tyr Lys Arg Leu Pro Ala
                365                 370                 375
Thr Asp Ser Asn Lys Gln Asn Leu Arg Gln Tyr Phe Glu Glu Ala
                380                 385                 390
Phe Glu Phe Ile Glu Glu Ala His Gln Cys Gly Lys Gly Leu Leu
                395                 400                 405
Ile His Cys Gln Ala Gly Val Ser Arg Ser Ala Thr Ile Val Ile
                410                 415                 420
Ala Tyr Leu Met Lys His Thr Arg Met Thr Met Thr Asp Ala Tyr
                425                 430                 435
Lys Phe Val Lys Gly Lys Arg Pro Ile Ile Ser Pro Asn Leu Asn
                440                 445                 450
Phe Met Gly Gln Leu Leu Glu Phe Glu Glu Asp Leu Asn Asn Gly
                455                 460                 465
Val Thr Pro Arg Ile Leu Thr Pro Lys Leu Met Gly Val Glu Thr
                470                 475                 480
Val Val
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<210> SEQ ID NO: 2
<211> LENGTH: 190

RAW SEQUENCE LISTING DATE: 06/04/2002
PATENT APPLICATION: US/09/937,060A TIME: 16:12:33

Input Set : A:\PF0683USNSEQLISTING.txt
Output Set: N:\CRF3\06042002\I937060A.raw

<212> TYPE: PRT
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 563663CD1
<400> SEQUENCE: 2

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  1               5                  10                  15
Thr Thr Thr Pro Gln Ile Pro Ile Lys Met Glu Asn Phe Asn Asn
             20                  25                  30
Phe Tyr Ile Leu Thr Ser Lys Glu Leu Gly Arg Gly Lys Phe Ala
             35                  40                  45
Val Val Arg Gln Cys Ile Ser Lys Ser Thr Gly Gln Glu Tyr Ala
             50                  55                  60
Ala Lys Phe Leu Lys Lys Arg Arg Arg Gly Gln Asp Cys Arg Ala
             65                  70                  75
Glu Ile Leu His Glu Ile Ala Val Leu Glu Leu Ala Lys Ser Cys
             80                  85                  90
Pro Arg Val Ile Asn Leu His Glu Val Tyr Glu Asn Thr Ser Glu
             95                 100                 105
Ile Ile Leu Ile Leu Glu Tyr Ala Ala Gly Gly Glu Ile Phe Ser
            110                 115                 120
Leu Cys Leu Pro Glu Leu Ala Glu Met Val Ser Glu Asn Asp Val
            125                 130                 135
Ile Arg Leu Ile Lys Gln Ile Leu Glu Gly Val Tyr Tyr Leu His
            140                 145                 150
Gln Asn Asn Ile Val His Leu Asp Leu Lys Pro Gln Asn Ile Leu
            155                 160                 165
Leu Ser Ser Ile Tyr Pro Leu Gly Asp Ile Lys Ile Val Asp Gly
            170                 175                 180
Gly Met Ser Arg Lys Ile Gly Gln Cys Val
            185                 190
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<210> SEQ ID NO: 3
<211> LENGTH: 455
<212> TYPE: PRT
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1425842CD1
<400> SEQUENCE: 3

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Met Ser Ser Leu Gly Ala Ser Phe Val Gln Ile Lys Phe Asp Asp
  1               5                  10                  15
Leu Gln Phe Phe Glu Asn Cys Gly Gly Gly Ser Phe Gly Ser Val
             20                  25                  30
Tyr Arg Ala Lys Trp Ile Ser Gln Asp Lys Glu Val Ala Val Lys
             35                  40                  45
Lys Leu Leu Lys Ile Glu Lys Glu Ala Glu Ile Leu Ser Val Leu
             50                  55                  60
Ser His Arg Asn Ile Ile Gln Phe Tyr Gly Val Ile Leu Glu Pro
```

RAW SEQUENCE LISTING DATE: 06/04/2002
PATENT APPLICATION: US/09/937,060A TIME: 16:12:33

Input Set : A:\PF0683USNSEQLISTING.txt
Output Set: N:\CRF3\06042002\I937060A.raw

```
164                   65                  70                  75
165 Pro Asn Tyr Gly Ile Val Thr Glu Tyr Ala Ser Leu Gly Ser Leu
166                   80                  85                  90
167 Tyr Asp Tyr Ile Asn Ser Asn Arg Ser Glu Glu Met Asp Met Asp
168                   95                 100                 105
169 His Ile Met Thr Trp Ala Thr Asp Val Ala Lys Gly Met His Tyr
170                  110                 115                 120
171 Leu His Met Glu Ala Pro Val Lys Val Ile His Arg Asp Leu Lys
172                  125                 130                 135
173 Ser Arg Asn Val Val Ile Ala Ala Asp Gly Val Leu Lys Ile Cys
174                  140                 145                 150
175 Asp Phe Gly Ala Ser Arg Phe His Asn His Thr Thr His Met Ser
176                  155                 160                 165
177 Leu Val Gly Thr Phe Pro Trp Met Ala Pro Glu Val Ile Gln Ser
178                  170                 175                 180
179 Leu Pro Val Ser Glu Thr Cys Asp Thr Tyr Ser Tyr Gly Val Val
180                  185                 190                 195
181 Leu Trp Glu Met Leu Thr Arg Glu Val Pro Phe Lys Gly Leu Glu
182                  200                 205                 210
183 Gly Leu Gln Val Ala Trp Leu Val Val Glu Lys Asn Glu Arg Leu
184                  215                 220                 225
185 Thr Ile Pro Ser Ser Cys Pro Arg Ser Phe Ala Glu Leu Leu His
186                  230                 235                 240
187 Gln Cys Trp Glu Ala Asp Ala Lys Lys Arg Pro Ser Phe Lys Gln
188                  245                 250                 255
189 Ile Ile Ser Ile Leu Glu Ser Met Ser Asn Asp Thr Ser Leu Pro
190                  260                 265                 270
191 Asp Lys Cys Asn Ser Phe Leu His Asn Lys Ala Glu Trp Arg Cys
192                  275                 280                 285
193 Glu Ile Glu Ala Thr Leu Glu Arg Leu Lys Lys Leu Glu Arg Asp
194                  290                 295                 300
195 Leu Ser Phe Lys Glu Gln Glu Leu Lys Glu Arg Glu Arg Arg Leu
196                  305                 310                 315
197 Lys Met Trp Glu Gln Lys Leu Thr Glu Gln Ser Asn Thr Pro Leu
198                  320                 325                 330
199 Leu Leu Pro Leu Ala Ala Arg Met Ser Glu Glu Ser Tyr Phe Glu
200                  335                 340                 345
201 Ser Lys Thr Glu Glu Ser Asn Ser Ala Glu Met Ser Cys Gln Ile
202                  350                 355                 360
203 Thr Ala Thr Ser Asn Gly Glu Gly His Gly Met Asn Pro Ser Leu
204                  365                 370                 375
205 Gln Ala Met Met Leu Met Gly Phe Gly Asp Ile Phe Ser Met Asn
206                  380                 385                 390
207 Lys Ala Gly Ala Val Met His Ser Gly Met Gln Ile Asn Met Gln
208                  395                 400                 405
209 Ala Lys Gln Asn Ser Ser Lys Thr Thr Ser Lys Arg Arg Gly Lys
210                  410                 415                 420
211 Lys Val Asn Met Ala Leu Gly Phe Ser Asp Phe Asp Leu Ser Glu
212                  425                 430                 435
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RAW SEQUENCE LISTING DATE: 06/04/2002
PATENT APPLICATION: US/09/937,060A TIME: 16:12:33

Input Set : A:\PF0683USNSEQLISTING.txt
Output Set: N:\CRF3\06042002\I937060A.raw

```
213 Gly Asp Asp Asp Asp Asp Asp Asp Gly Glu Glu Glu Asp Asn Asp
214                 440                 445                 450
215 Met Asp Asn Ser Glu
216                 455
219 <210> SEQ ID NO: 4
220 <211> LENGTH: 485
221 <212> TYPE: PRT
222 <213> ORGANISM: Homo sapiens
224 <220> FEATURE:
225 <221> NAME/KEY: misc_feature
226 <223> OTHER INFORMATION: Incyte ID No: 2349047CD1
228 <400> SEQUENCE: 4
229 Met Ala Lys Gly Gly Ile Phe Pro Arg Pro Arg Cys Asp Ser Ser
230   1               5                  10                  15
231 Ser Leu Leu Glu Cys Arg Lys Ala Ile Ser Arg Glu Val Lys Ala
232                  20                  25                  30
233 Met Ala Ser Leu Asp Asn Glu Phe Val Leu Arg Leu Glu Gly Val
234                  35                  40                  45
235 Ile Glu Lys Val Asn Trp Asp Gln Asp Pro Lys Pro Ala Leu Val
236                  50                  55                  60
237 Thr Lys Phe Met Glu Asn Gly Ser Leu Ser Gly Leu Leu Gln Ser
238                  65                  70                  75
239 Gln Cys Pro Arg Pro Trp Pro Leu Leu Cys Arg Leu Leu Lys Glu
240                  80                  85                  90
241 Val Val Leu Gly Met Phe Tyr Leu His Asp Gln Asn Pro Val Leu
242                  95                 100                 105
243 Leu His Arg Asp Leu Lys Pro Ser Asn Val Leu Leu Asp Pro Glu
244                 110                 115                 120
245 Leu His Val Lys Leu Ala Asp Phe Gly Leu Ser Thr Phe Gln Gly
246                 125                 130                 135
247 Gly Ser Gln Ser Gly Thr Gly Ser Gly Glu Pro Gly Gly Thr Leu
248                 140                 145                 150
249 Gly Tyr Leu Ala Pro Glu Leu Phe Val Asn Val Asn Arg Lys Ala
250                 155                 160                 165
251 Ser Thr Ala Ser Asp Val Tyr Ser Phe Gly Ile Leu Met Trp Ala
252                 170                 175                 180
253 Val Leu Ala Gly Arg Glu Val Glu Leu Pro Thr Glu Pro Ser Leu
254                 185                 190                 195
255 Val Tyr Glu Ala Val Cys Asn Arg Gln Asn Arg Pro Ser Leu Ala
256                 200                 205                 210
257 Glu Leu Pro Gln Ala Gly Pro Glu Thr Pro Gly Leu Glu Gly Leu
258                 215                 220                 225
259 Lys Glu Leu Met Gln Leu Cys Trp Ser Ser Glu Pro Lys Asp Arg
260                 230                 235                 240
261 Pro Ser Phe Gln Glu Cys Leu Pro Lys Thr Asp Glu Val Phe Gln
262                 245                 250                 255
263 Met Val Glu Asn Asn Met Asn Ala Ala Val Ser Thr Val Lys Asp
264                 260                 265                 270
265 Phe Leu Ser Gln Leu Arg Ser Ser Asn Arg Arg Phe Ser Ile Pro
```

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 06/04/2002
PATENT APPLICATION: US/09/937,060A TIME: 16:12:34

Input Set : A:\PF0683USNSEQLISTING.txt
Output Set: N:\CRF3\06042002\I937060A.raw

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:16; N Pos. 959,1029,1159